DOCUMENT RESUME

ED 215 582 FL 012 889

AUTHOR Brown, Cheryl J.
TITLE Assessment of the Need for Verbal Language Instruction for Navy Recruits.
INSTITUTION Naval Training Analysis and Evaluation Group, Orlando, Fla.
REPORT NO TAEG-TM-82-3
PUB DATE Mar 82
NOTE 25p.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adults; Armed Forces; *English (Second Language); Enlisted Personnel; Language Proficiency; *Listening Comprehension; Minority Groups; *Speech Communication; *Testing
IDENTIFIERS Navy

ABSTRACT

This study sought to determine the extent of the Navy's problem with recruits who have deficiencies in the verbal English comprehension skills necessary to complete recruit training. English language comprehension skills, particularly verbal comprehension, of a cross-section of new recruits were assessed at three training centers--Orlando, Great Lakes, and San Diego. In addition, relevant biographical information was gathered and used to identify the type of recruit likely to have deficiencies in verbal English comprehension. The variables considered included race and/or ethnic background, educational background, place of birth, and first language. In addition to an explanatory introduction, the report describes the testing procedures, the kinds of biographical data collected, the results of the testing effort, and conclusions and recommendations. (Author/AMH)

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ED215582

Technical Memorandum 82-3

ASSESSMENT OF THE NEED FOR VERBAL LANGUAGE INSTRUCTION FOR NAVY RECRUITS

Cheryl J. Brown

Training Analysis and Evaluation Group

March 1982

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Alfred F. Smode

ALFRED F. SMODE, Ph.D., Director
Training Analysis and Evaluation Group

W. L. Maloy

W. L. MALOY, Ed.D.
Deputy Chief of Naval Education and Training for Educational Development/Research, Development, Test, and Evaluation

ACKNOWLEDGMENTS

The author wishes to thank the following personnel for their cooperation in conducting the testing:

LT Charles King, USN, Director, Technical Training, Recruit Training Command (RTC), Naval Training Center (NTC), Great Lakes, IL; ICC(SS) J. G. Pearson, USN, Academic Remedial Training, RTC, NTC, San Diego, CA; LCDR Horace McMorrow, USN, Academic Remedial Training, RTC, NTC, Orlando, FL; and Mr. John Devine, Defense Language Institute, Lackland Air Force Base, TX.

Appreciation is also extended to the following Training Analysis and Evaluation Group personnel: Dr. J. Peter Kincaid, director of this project, who helped arrange the testing and provided helpful suggestions throughout the study, and Mr. William Parrish, who arranged for computer support for the data analysis.

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER Technical Memorandum 82-3	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) ASSESSMENT OF THE NEED FOR VERBAL LANGUAGE INSTRUCTION FOR NAVY RECRUITS		5. TYPE OF REPORT & PERIOD COVERED 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Cheryl J. Brown		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Training Analysis and Evaluation Group Department of the Navy Orlando, FL 32813		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS		12. REPORT DATE March 1982 13. NUMBER OF PAGES 22
14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution is unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

English as a Second Language (ESL)
Language Comprehension
Language Deficiencies
English Comprehension Level (ECL) Test
Hispanic-Americans
Academic Remedial Training (ART)

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This study sought to determine the extent of the Navy's problem with recruits who have deficiencies in the verbal English comprehension skills necessary to complete recruit training. English language comprehension skills, particularly verbal comprehension, of a cross-section of new recruits at each of the three RTCs--Orlando, Great Lakes, and San

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE
S/N 0102-LF-014-6601

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

20. ABSTRACT (continued)

Diego--were assessed. In addition, relevant biographical information was gathered and used to identify the type of recruit likely to have deficiencies in verbal English comprehension. The variables considered included race and/or ethnic background, educational background, place of birth, and first language.

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SECTION I

INTRODUCTION

Academic remedial training programs are receiving a high level of attention in the Navy. Expected manpower shortages during the 1980's require augmenting the skills of those recruits who are marginal intellectual performers and likely candidates for attrition.

The Navy currently assesses reading skills of all new recruits and has a standardized curriculum to provide reading remediation when necessary. The Academic Remedial Training (ART) program, described in Kincaid and Curry (1979), is designed to raise a recruit's reading skills to a point sufficient to successfully complete recruit training.

The continuing decline in the number of those qualified for military enlistment may, however, require the Navy to offer remediation for other language skills in addition to reading. For instance, until the recent upsurge in the enlistment of recruits having English as a second language (ESL), little effort was made to identify those recruits who were having difficulty with the spoken language and to treat verbal comprehension deficiencies, apart from reading deficiencies, as a separate and equally important problem. Recruits with language difficulties, such as an inability to understand commands and instructions, are less likely to complete recruit training, be promoted, or function effectively in Navy jobs. With this understanding, the Navy is attempting to obtain accurate information about the extent of the verbal language problem and its effect throughout the Navy in order to plan appropriate verbal language remediation programs.

The Navy's concern with verbal language comprehension, thus far, has focused on a recruit population likely to have difficulties with spoken English--Hispanic recruits who speak English as a second language. Hispanics presently comprise about three percent of the Navy enlisted population and this figure is expected to increase to about five percent in the next several years. A report by Salas, Kincaid, and Ashcroft (1980) concluded that language comprehension is an important determinant of attrition in the growing group of Hispanics and other recruits who speak English as a second language. The report recommended expanding the ART program to include a verbal skills program.

Since that time, a Verbal Skills Curriculum, with heavy emphasis on speaking and listening, has been developed by Memphis State University under contract to the Chief of Naval Technical Training (CNTECHTRA). The TAEG was tasked by the Chief of Naval Education and Training (CNET) to serve as the technical monitor for developing the curriculum and for conducting a field test at the Recruit Training Command (RTC), Orlando.[1] The evaluation is currently underway and will be presented in a subsequent TAEG report.

[1]CNET ltr Code 022 of 25 Nov 1980.

In a separate but related project,[2] the TAEG is presently evaluating an ESL curriculum developed by the Puerto Rican Army National Guard. This adaptation of a six-month curriculum offered by the Defense Language Institute (DLI) involves nine weeks of English language training conducted at Camp Santiago, Puerto Rico, prior to regular recruit training in Orlando. The curriculum is certified by the DLI.

Salas, et al. (1980) assessed the language comprehension skills of a group of Hispanic recruits, mostly Puerto Rican, who spoke English as a second language. It recommended implementing a verbal skills program for these recruits and others who have English as a second language. The Verbal Skills Curriculum, however, is intended to be more than an ESL program. It is likely that the Navy will have difficulty meeting recruitment goals over the next decade. The Verbal Skills Curriculum, designed to teach all recruits, including those born and raised in the United States, the English skills necessary to complete recruit training and to function effectively in Navy jobs, will likely aid in satisfying the Navy's overall recruitment requirements.

In order to support the Navy effort to establish policies and a remedial training program for all recruits with language comprehension difficulties, the TAEG was requested by the CNTECHTRA,[3] as a follow-up to an earlier CNET tasking,[4] to conduct a study to assess the verbal language skills of new recruits sampled from the entire Navy population. The present study attempts to assess the extent of the language problem at each of the RTCs. Information about each RTC will aid in determining which RTCs need a verbal skills program and, in addition, will have implications for the development of an ESL program.

PURPOSE OF THE STUDY

The purpose of the present study was to assess English language comprehension skills, particularly verbal comprehension, of a cross-section of new recruits at each of the three RTCs--Orlando, Great Lakes, and San Diego. In addition, relevant biographical information was gathered and used to identify the type of recruit likely to have deficiencies in verbal English comprehension. The variables considered included race and ethnic background, educational background, place of birth, and first language.

ORGANIZATION OF THE REPORT

In addition to this introduction, the report contains three sections and an appendix. Section II describes the language comprehension testing procedures and the kinds of biographical information collected. Section III

[2]CNET ltr Code 022 of 26 Aug 1981.
[3]CNTECHTRA ltr Code 017/WPC 3900 of 13 May 1981.
[4]CNET ltr Code N-532 of 29 June 1978.

contains a summary of data, and section IV presents conclusions about the extent of language problems in recruit training and recommendations concerning verbal language remediation. The appendix contains the questionnaire administered to recruits who served as subjects.

SECTION II

METHOD

The study was designed to examine the extent and pattern of verbal language deficiencies in the Navy recruit population. This section of the report describes the testing procedures and the analyses performed.

TESTING PROCEDURES

The English Comprehension Level (ECL) Test was administered during June and July 1981 to a sample of 3,058 recruits. Slightly more than 1,000 recruits participated at each of the three RTCs--Orlando, Great Lakes, and San Diego. All recruits tested in Great Lakes and San Diego were male. The sample from Orlando was 30 percent female (numbers of recruits in each racial and ethnic category at each RTC are provided in section III of this report). The ECL Test is a standardized language comprehension test with a heavy emphasis on oral language comprehension. It was devised by the Defense Language Institute (DLI) and is used as a screening device with their English language training curriculum. The test has a reading section and a listening section administered via an audio tape. Two forms of the test, K and L, were used in the present study.

The ECL Test is intended for use by the armed services. Although there is no official cutoff score, 70 is the accepted level. For example, DLI usually refers foreign military troops who score below 70 on the test to English language training before starting military technical training in the United States. Since the academic portion of Navy recruit training requires more verbal communication than is typical of initial entry training in the armed services, the cutoff score was raised 10 points above the DLI cutoff to 80 for this study.

The ECL Test was administered on the same day or the day after recruits were administered the Gates-MacGinitie Reading Test, Level D (MacGinitie, 1978). The Gates-MacGinitie is routinely administered to all recruits during the first week of recruit training. It is standard procedure for all recruits who score below sixth grade reading level to be automatically referred to Academic Remedial Training; however, each RTC can raise the cutoff score to the seventh grade when student loading is light. (This is the current case in Orlando.) The reading grade levels (RGL) of recruits obtained from the test were compared to verbal ability levels indicated by ECL scores.

DESCRIPTIVE ANALYSES

Descriptive data included personal information obtained from a questionnaire and test data obtained from a battery of tests. Biographical data on each recruit were collected at the time the ECL test was administered. A questionnaire, shown in the appendix, read aloud to recruits, was used to obtain information on recruit characteristics related to English language proficiency. Specifically, information on the state or country where most of schooling took place, race and/or ethnic group, first language spoken at home, language spoken when with friends in a social situation (social

language), and state or country lived in most of life was assembled. Descriptive summaries of the ECL Test results were prepared using these variables. Initially, mean ECL scores were obtained for each racial and ethnic category at each RTC. Other breakdowns of the data were included when it was necessary to find mean ECL scores for subgroups of the racial and ethnic categories; e.g., mean ECL for all recruits who were Hispanic and spoke Spanish at home.

CORRELATIONAL ANALYSES

Correlational analyses were performed to find test scores other than ECL which could predict verbal language ability.

For each recruit, student records were used to obtain scores derived from subtests of the Armed Services Vocational Aptitude Battery (ASVAB)--Word Knowledge (WK), Paragraph Comprehension (PC), and AFQT (a composite score of various ASVAB subtests).

Of the total sample, 1,155 recruits had ASVAB scores based on Forms 5, 6, and 7, while the remaining 1,903 recruits had ASVAB scores based on a newer version--Forms 8, 9, and 10. The old and new forms are comparable except that Paragraph Comprehension is a subtest of only the new forms of the ASVAB. Using the new ASVAB sample of 1,903 recruits, ASVAB scores were correlated with ECL to assess the usefulness of those measures as predictors of ECL. A correlation for RGL and ECL was also obtained.

Multiple correlations were performed to determine whether RGL, WK, PC, and AFQT could be combined into a formula for predicting ECL.

SECTION III

RESULTS

The results of the testing effort are reported below, with results from each RTC shown separately. Mean ECL scores for race and ethnic groups and number of recruits who failed to reach the ECL and RGL cutoff in each group are reported. As indicated earlier, 80 was the cutoff score on the ECL Test for the purpose of this evaluation. A reading proficiency of the seventh grade was chosen as the RGL cutoff since it is a conservative estimate of reading ability and is consistently employed by the three RTCs.

The percentage of recruits who failed[5] the ECL Test at each RTC is provided in tables 1, 4, and 5.

TABLE 1. VERBAL AND READING TEST SCORES FOR RACE AND ETHNIC GROUPS--RTC, SAN DIEGO

Race/Ethnic Group	Number	Mean ECL*	Number (%) ECL $<$ 80	Number ECL $<$ 80 and RGL $\leq$ 7.0**
White	780	96.2	19 (2.4%)	6
Black	120	93.7	1 (.8%)	1
Hispanic	78	91.8	6 (7.4%)	3
American Indian	11	92.9	0	0
Asian/Pacific Island	26	87.5	9 (34.6%)	7
Total	1,015	92.4	35 (3.4%)	17

*English Comprehension Level Test Score--a measure of verbal ability.
**Reading Grade Level--measured by the Gates-MacGinitie Reading Test.

The data can be used to estimate the percentage of recruits destined for each RTC who may need verbal language remediation, if the composition of the recruit population remains the same.

[5]Throughout this report, the term "failed," when referring to the ECL Test, means "failed to achieve the cutoff score of 80."

Table 1 indicates that 35 recruits (3.4 percent of the sample) reporting at the RTC, San Diego, failed the ECL Test. Seventeen of the 35 also scored below the RGL cutoff. Mean ECL scores for all groups at San Diego are considerably above the cutoff score of 80; however, 34.6 percent of the recruits reporting Asian or Pacific Island backgrounds failed the test. A summary of ECL Test results for the Asian/Pacific Island group at San Diego is shown in table 2.

TABLE 2. ENGLISH COMPREHENSION LEVEL TEST RESULTS FOR ASIAN AND PACIFIC ISLAND RECRUITS*--RTC, SAN DIEGO

			ECL Test	
		Total	Above Criterion***	Below Criterion
Home	U.S.	6	4	2
	Philippine Islands	11	7	4
	Other	9	6	3
Education	U.S.	12	10	2
	Philippine Islands	10	6	4
	Other	4	1	3
Home Language	English	10	8	2
	Philippine	13**	8	5
	Other	3	1	2
Social Language	English	13	11	2
	Philippine	9**	5	4
	Other	4	1	3

*Number of subjects in sample = 26.
**The language most frequently reported was Tagalog.
***Criterion = 80.

According to table 2, most of the Asian and Pacific Island recruits in basic training at RTC, San Diego, at the time of the study, were born and raised in a country other than the United States (20 out of 26). Half of the recruits who spoke a language other than English at their home language (7 out of 16) or as their soical language (7 out of 13) failed the ECL Test. Seven out of 14 recruits who had little or no prior United States education failed the test.

Most recruits in other groups at San Diego passed the test, including the large Hispanic group. ECL Test results for the Hispanic recruits at San Diego are shown in table 3.

TABLE 3. ENGLISH COMPREHENSION LEVEL TEST RESULTS FOR HISPANIC RECRUITS*--RTC, SAN DIEGO

		Total	ECL Test Above Criterion**	ECL Test Below Criterion
Home	U.S.	75	71	4
	Other	3	1	2
Education	U.S.	75	71	4
	Other	3	1	2
Home Language	English	58	54	4
	Spanish	19	18	1
	Other	1	0	1
Social Language	English	69	63	6
	Spanish	9	9	0
	Other	0	0	0

* Number of subjects in sample = 78.
**Criterion = 80.

Most of the Hispanic recruits reported the United States as their home. Of the Hispanics who reported that they spoke Spanish at home or with friends, only one failed the ECL Test.

Data from the RTC, Great Lakes, are reported in table 4. Only 18 recruits (1.7 percent of the sample) failed the ECL Test. Five of the 18 also scored below the RGL cutoff. The mean ECLs for all groups are all relatively high and do not indicate an English language problem for any particular group of recruits. All recruits who failed to achieve the ECL cutoff (except one Hispanic recruit) named English as their first language.

TABLE 4. VERBAL AND READING TEST SCORES FOR RACE AND ETHNIC GROUPS--RTC, GREAT LAKES

Race/Ethnic Group	Number	Mean ECL*	Number (%) ECL < 80	Number ECL < 80 and RGL ≤ 7.0**
White	873	97.0	12 (1.4%)	2
Black	111	93.4	5 (4.5%)	3
Hispanic	26	91.6	1 (3.8%)	0
American Indian	8	95.3	0	0
Asian/Pacific Island	6	88.5	0	0
Total	1,024	93.2	18 (1.7%)	5

*English Comprehension Level Test Score--a measure of verbal ability.
**Reading Grade Level--measured by the Gates-MacGinitie Reading Test.

Data from the RTC, Orlando, are shown in table 5. Seventy-five recruits (7.3 percent of the sample) failed the ECL Test. Thirty of the seventy-five also scored below the RGL cutoff. Most were native-born English-speaking Americans from the Orlando recruiting area. Mean ECL scores for the Hispanic, American Indian, and Asian/Pacific Island groups were slightly above 80. A profile of the largest group, the Hispanics, is shown in table 6.

In the Hispanic group, scores from an identifiable subgroup depressed the mean. Four of the five who failed the ECL Test were recruits from Puerto Rico who spoke Spanish as their first language. The three remaining Puerto Rican recruits in the Hispanic sample passed the test.

TABLE 5. VERBAL AND READING TEST SCORES FOR RACE AND ETHNIC GROUPS--RTC, ORLANDO

Race/Ethnic Group	Number	Mean ECL*	Number (%) ECL < 80	Number ECL < 80 and RGL ≤ 7.0**
White	786	91.7	32 (4.1%)	9
Black	186	86.1	34 (18.3%)	17
Hispanic	34	82.9	5 (14.7%)	3
American Indian	5	83.6	1 (20.0%)	0
Asian/Pacific Island	8	85.7	3 (37.5%)	1
Total	1,019	86.0	75 (7.3%)	30

*English Comprehension Level Test Score--a measure of verbal ability.
**Reading Grade Level--measured by the Gates-MacGinitie Reading Test.

TABLE 6. ENGLISH COMPREHENSION LEVEL TEST RESULTS FOR HISPANIC RECRUITS*--RTC, ORLANDO

		Total	ECL Test Above Criterion**	ECL Test Below Criterion
Home	U.S.	25	24	1
	Other	9	5	4
Education	U.S.	25	24	1
	Other	9	5	4
Home Language	English	18	17	1
	Spanish	16	12	4
	Other	0	0	0
Social Language	English	26	25	1
	Spanish	8	4	4
	Other	0	0	0

*Number of subjects in sample = 34.
**Criterion = 80.

Another identifiable subgroup depressed the mean ECL in the Asian/Pacific Island group (containing 8 recruits). Two recruits in that group were from the Philippine Islands and both failed the ECL Test. The remaining six, who reported that they lived in the United States or that they received most of their education in the United States passed the ECL Test.

The total number of recruits who failed the ECL Test summed over the three RTCs (tables 1, 4, and 5) is 128, and the total number who failed to achieve both the RGL criterion and the ECL criterion is 52. These figures indicate that, with current screening practices based solely on reading proficiency, more than half of those recruits needing language comprehension remediation normally would not be identified.

In order to assess the usefulness of ASVAB scores and RGL as predictors of ECL Test performance, scores from the Word Knowledge (WK) subtest and the Paragraph Comprehension (PC) subtest of the ASVAB, and AFQT were correlated with ECL. All correlations were low, ranging from r = .34 to .42, indicating that ASVAB scores do not give a good prediction as to whether or not a recruit has oral language deficiencies. The correlation between ECL and RGL was low (r = .35), indicating that the Gates MacGinitie Reading Test and the ECL Test are measuring substantially different language skills. Multiple correlation analyses did not produce a formula which could give a good prediction of English comprehension level.

SECTION IV

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

This study used the English Comprehension Level (ECL) Test to measure language comprehension, particularly verbal comprehension, of 3,058 new recruits. Characteristics of recruits at each RTC, such as racial and ethnic origin, home, education background, and language spoken at home or with friends, were analyzed in order to relate these variables to verbal language proficiency. The results for each RTC indicate that there are differences in the composition of the recruit populations. Although recruit training is, for the most part, standardized for all RTCs, recruit training requirements will sometimes vary as a result of these population differences. This is the case for verbal language training.

The percentage of recruits who failed to achieve the cutoff score of 80 on the ECL Test can be used as an indicator of the extent of verbal language deficiencies in the population of recruits destined for a particular RTC, which in turn determines the need for a verbal language curriculum at that RTC. When the testing results were analyzed for each RTC, two RTCs showed a percentage of recruits with verbal language deficiencies worthy of attention----Orlando (7.3 percent) and San Diego (3.4 percent). The percentage at Great Lakes (1.7 percent) indicated less of a problem.

Analyses of biographical data revealed that particular subgroups at the RTCs in Orlando and San Diego showed a high percentage of recruits who failed the ECL Test. At the RTC, Orlando, a large percentage of recruits arriving from Puerto Rico and the Philippine Islands, with little or no United States education and with English as a second language, did not pass the test, and a large number of recruits born and raised in the United States did not pass the test. At the RTC, San Diego, the only defined subgroup showing a noticeable percentage of recruits who failed the ECL Test was the group of recruits arriving from the Philippine Islands or Asian countries.

For Orlando, the results agree with Salas, et al. (1980) who first documented the large number of Puerto Rican recruits in Orlando needing English language training. Moreover, the influx of Puerto Rican recruits arriving at RTC, Orlando, is expected to grow larger during the present decade. With the continuing commitment by the Navy to increase the Hispanic recruit population, there is a growing interest in Puerto Rico as a prime recruiting area.

An unexpected finding at the Orlando RTC was the large number of recruits born and raised in the United States who did not achieve the cutoff score of 80 on the ECL Test. This finding indicates the need for verbal language remediation for these recruits, as well as for recruits who have English as a second language. The Verbal Skills Curriculum, currently being evaluated as a comprehensive verbal language remediation program, appears to be appropriate for native-born, English speaking recruits.

The study revealed that the ECL is a more sensitive indicator of verbal comprehension deficits than the RGL, which is presently used to screen recruits for reading remediation. More than half of the recruits who failed to meet criterion on the ECL Test had RGLs above 7.0 (cutoff for ART). Similarly, ASVAB scores were not found to be particularly good indicators of verbal comprehension level. Thus, new approaches to the identification of recruits who need verbal language remediation must involve ECL testing.

RECOMMENDATIONS

Based on the findings of the present study, the following recommendations are provided to assist in the identification and remediation of verbal language deficiencies of new recruits.

1. Recruits at RTC Orlando or San Diego who need verbal language remediation should be placed in a specialized program, such as the Verbal Skills Curriculum currently being evaluated, at those RTCs. The small number of recruits needing remediation at Great Lakes does not warrant creating a remediation program there.

2. The ECL Test should not be routinely administered to all new recruits, but only to those from the following groups (if they have had little or no United States education):

- RTC, Orlando--all recruits arriving from Puerto Rico and the Philippine Islands who speak English as a second language
- RTC, San Diego--all recruits arriving from the Philippine Islands or countries in Southeast Asia
- RTC, Great Lakes--no routine administration to any particular group.

3. At Orlando and San Diego, every recruit referred to ART should routinely complete the ECL Test. If the recruit's ECL Test score is less than 80 and if a brief oral interview reveals deficiencies in either speaking or understanding English, the recruit should be placed in a verbal language remediation program.

4. A recruit's referral to ART often occurs after contacts by the Company Commander, Academic Review Board, or the Classifier. In these contacts, information such as home, educational background, and first language should be used to determine if a recruit should be sent to ART to complete the ECL Test.

5. Consideration should be given to placing recruits born and raised in the United States who have verbal English deficiencies, in a verbal language remediation program.

REFERENCES

Kincaid, J. P. and Curry, T. F. Development and Evaluation of a Remedial Reading Workbook for Navy Training. TAEG Report No. 79, 1979. Training Analysis and Evaluation Group, Orlando, FL (AD A079288).

MacGinitie, W. H. Gates-MacGinitie Reading Tests, Level D. Boston: Houghton-Mifflin, 1978.

Salas, E., Kincaid, J. P., and Ashcroft, Nancy. An Assessment of Hispanic Recruits Who Speak English as a Second Language. TAEG Report No. 86, 1980. Training Analysis and Evaluation Group, Orlando, FL (AD A087104).

APPENDIX

ENGLISH LANGUAGE COMPREHENSION TEST QUESTIONNAIRE

The following questions were read aloud to the recruits before testing (ECL) began. Answers were written on the test answer sheet.

1. How old are you?

2. How many years did you attend school? For instance, if you graduated from high school the answer is 12. Answer to the nearest whole number.

3. Where did you go to school for most of your life? Write the state (or country, if not U.S.).

4. What is your ethnic background? You have the following choices: Black, Puerto Rican, Mexican-American, Other Hispanic, Indian, Oriental, White, Filipino. (Orlando only: What is your sex, Male or Female?)

5. State what language is the first language spoken in your home.

6. What is the language that you speak when with friends in a social situation?

7. Where did you live for most of your life? Write the state (or country, if not U.S.).

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